



英语翻译技巧(28)

涂学忠

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Pneumatic Tyres

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1 INTRODUCTION

During the last decade, changing attitudes in the motor industry together with the rapid developments in the field of synthetic textiles and elastomers have had a considerable impact on tyre manufacturing plant and operating techniques^①.

Recent legislation in Europe and N. America has placed emphasis on safety, and this has brought about the development of more complex tread patterns to assist water displacement and thereby to minimise the tendency to aqua-plane^②. The 'wet grip' requirement has also led to the introduction of special rubber compounds. These features have tended to complicate factory processing of the tread elements, including the steps of vulcanisation and extraction of the finished tyre from the mould.

Improvements to road networks and, in particular, the construction of motorways have led to higher sustained operating speeds. Concurrently, suspension systems and chassis designs have altered significantly, resulting in more sensitive structures. The combined effect of these developments has tended to highlight the ill effects of vibrations and resonances excited by forces generated by lack of uniformity within the tyre structure^③. As a direct result, vehicle

manufacturers insist upon rigid specifications for tyre uniformity particularly in the passenger car field and, to a growing extent, for the truck ranges^④. This requirement has become more critical with the adoption of the radial ply tyre and the increasing use of high-modulus materials in the carcass. Variables that require to be controlled include radial and lateral force variations, static unbalance, and radial and lateral run-out. It should be appreciated that the force or unbalance actually measured on the tyre is a vectorial summation of an infinite number of small forces or moments about the central axis. A complete reappraisal of previously accepted manufacturing practices and operating tolerances has been made, leading to the raising of quality acceptance standards for raw materials, in-process components, tyre manufacture, and finished tyre grading.

生 词

synthetic textile	合成纤维织物
legislation	法规,立法
water displacement	排水
aqua-plane	水滑
wet grip	湿抓着力
tread element	胎面花纹
extraction from mold	脱模,出模
road network	公路网
suspension system	悬架系统,悬挂系统
chassis	汽车底盘

vibration	振动
resonance	谐振
modulus	模量, 定伸应力
carcass	胎体, 帘布层
radial ply tyre	子午线轮胎
static unbalance	静态不平衡度, 静平衡差度
radial run-out	径向跳动
lateral run-out	横向偏离

译 文

充气轮胎

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1 引言

60 年代期间, 汽车工业界态度的变化和合成纤维织物及弹性体领域的迅猛发展, 有力地推动了轮胎加工设备及操作工艺的发展^①。

欧洲和北美最近法规的侧重点是安全性, 这导致了有助于排水, 从而减轻水滑现象的更复杂胎面花纹的发展^②。湿抓着性的要求还导致了专用胶料的应用。这些特点使得工厂中胎面花纹的加工, 其中包括硫化工序和轮胎出模复杂化了。

公路网的改进, 特别是快车道的建造, 导致了更高的持续行驶速度。同时, 悬挂系统和底盘设计都进行了很大变动, 结果形成了更灵敏的结构。这些发展的综合作用突出了轮胎结构不均匀产生的力所引起的振动和共振的恶果^③。其直接后果是汽车制造厂坚持按严格的技术规范要求轮胎, 特别是轿车轮胎的均匀性, 对载重轮胎的要求也日益严格^④。随着子午线轮胎的采用和胎体中高模量材料使用日益增多, 这种要求愈来愈苛刻。需要控制的变量有径向力和侧向力的变化、静平衡差度以及径向跳动和侧向偏离。在轮胎上实

际测量的力或平衡差度是无数围绕中心轴的小分力或转矩的矢量总和。对以前采用的制造方法和操作公差进行了全面的重新估价, 从而导致了原材料、半成品、轮胎制造和成品轮胎分级质量合格标准的提高。

注: ①因本文著于 70 年代, 所以“during the last decade”直译为“前一个 10 年期间”容易让人误解, 不如转译为“60 年代期间”; “had a considerable impact on……”译为“对……有相当大的影响”, 不如译为“有力地推动了……的发展”。

②“to assist……”和“to minimise……”为不定式短语作定语, 修饰“more complex tread patterns”。

③此句中两个“effect”的译法不同, 请读者注意揣摩, 这个词有时还译为“影响”、“效果”等, 总之, 要灵活运用; “excited by force……”是“vibration and resonances”的后置定语, “generated by……”又是“force”的后置定语。

④“to a growing extent”为插入语; “the truck ranges”这里指“载重轮胎品种”。

英译汉常见错误实例

Also evaluated on the strip samples after pulling was a “tearing rating” based on the average coverage of the delaminated strips with rubber.

误: 胶条剥离后也作了鉴定, 其方法是: “撕裂级别”以分层胶条有橡胶的平均覆盖为准。

正: 还要在剥离后, 根据脱层胶条上的平均覆胶率评定胶条试样的“撕裂等级”。

注: ①原文是倒装句, 等于“A tearing rating based on……was also evaluated on……”。

②主语是“a tearing rating”。